

ABSTRACT OF THE DISCLOSURE

Low cost antennas and electromagnetic absorbing parts formed of a conductive loaded resin-based material. The conductive loaded resin-based material

5 comprises conductive fibers, conductive powders, or in combination thereof in a resin base host wherein the ratio of the weight of the conductor fibers, conductor powders, or combination of conductor fibers and conductor powders to the weight of the base resin host is between about 0.20 and 0.40. The conductive fibers or conductive powders can be stainless steel, nickel, copper, silver, carbon, graphite, plated fibers or particles, or the

10 like. The antenna elements can be formed using methods such as injection molding or extrusion. Virtually any antenna, ground planes, or shielding packages fabricated by conventional means of metal can be fabricated using the conductive loaded resin-based materials. The conductive loaded resin-based material used to form the antenna elements, EMF absorbing elements, or ground planes can be in the form of a thin flexible material,

15 which can be readily cut to the desired shape.